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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,369	11/19/2003	Sang-Dae Kim	HSI-0002	3782
34610	7590	10/31/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			THOMPSON, CAMIE S	
			ART UNIT	PAPER NUMBER
			1774	

DATE MAILED: 10/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/715,369

Applicant(s)

KIM ET AL.

Examiner

Camie S. Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment filed 8/16/2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed August 16, 2005 have been acknowledged.
2. Examiner acknowledges amended claims 1-7.
3. The rejection of claims 2-5 under 35 U.S.C. 112, second paragraph is withdrawn due to applicant's amended claims.
4. The rejection of claims 1, 4 and 6-7 under 35 U.S.C. 102(b) as being anticipated by Tang et al., U.S. Patent Number 6, 066,357 is withdrawn due to applicant's argument.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobori et al., U.S. Patent Number 6,603,140.

Kobori discloses an organic EL device comprising a substrate having an anode, a hole transporting layer, a luminescent layer, an electron transport layer and a cathode (see column 571, reference example 1). Reference claim 7 discloses that there are two light emitting layers

including a bipolar light emitting layer wherein the bipolar light emitting layer is disposed near a hole transporting layer or the bipolar light emitting layer is disposed near the electron transporting layer as per instant claim 5. Also, reference claim 10 discloses that at least one of the at least two light emitting layers is doped with a dopant. Column 41, lines 19-24 of the Kobori reference discloses that the light emitting layers have a thickness of 5 to 100 nm wherein the total thickness of the light emitting layers is 60 to 400 nm.

### ***Response to Arguments***

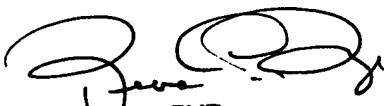
7. Applicant's arguments filed August 16, 2005 have been fully considered but they are not persuasive. Applicant argues that the Kobori reference does not disclose or suggest a light emitting layer that includes a doping layer and a non-doping layer. Kobori discloses an organic EL device comprising a substrate, an anode, a hole transporting layer, a luminescent layer, an electron transport layer and a cathode. Additionally, Kobori discloses that the luminescent layer comprises two or more light-emitting layers wherein one light emitting layer has a dopant. Applicant also argues that the reference does not disclose or suggest that non-doping layer has a host and the doping layer has a host and a dopant. Column 39, lines 34-38 of the reference discloses that each of the light emitting layers comprises a host material that includes a mixture of a hole injection and transporting compound and an electron injecting and transporting compound. Additionally, in column 39, the Kobori reference discloses that one of the light emitting layers may be doped with a fluorescent dopant. Applicant argues that the same host material in both the doping and on-doping layers precludes the need for a separate hole blocking

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layer. The instant claims recite a host material. The host material is not specified in the instant claims. Applicant also argues that Kobori does not disclose or suggest that a portion of the doping layer is in contact with a portion of the non-doping layer. Kobori discloses that the two light emitting layers are in contact with each other as in reference claim 7. Applicant argues that the Kobori reference does not suggest a light emitting layer that includes both a doping layer and non-doping layer. Kobori discloses a light-emitting layer that is comprised of two layers wherein each layer has a host and one layer can be doped. The Kobori reference reads on the instant claims. The rejection is maintained.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L. Dye, can be reached at (571) 272-3186. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RENA DYE  
SUPERVISORY PATENT EXAMINER  
A.U. 1774 12/26/05